

Hsa-miR-198 Probe

Catalog No. FM198-25

Description: one vial of 0.3 mL of probe in hybridization buffer

Intended Use:

This probe is intended for research use only.

Principle:

MicroRNAs (miRNAs) are endogenous, non-coding small RNA molecules that play important role in controlling gene expression. They are involved in multiple biological functions and disease progression including cancer. miRNAs either act as tumor suppressors or oncogenes depending on function of their target gene. Aberrant expression of miRNA has been reported in different cancer types; hence, *in situ* detection of miRNA provides important insight for diagnosis, prognosis, and disease management. Preliminary evidence has shown that miR-198 is downregulated in hepatocellular carcinoma (HCC) compared to normal liver. Furthermore, functional characterization, as well as mechanistic studies of miR-198 revealed that miR-198 acts as a potential suppressor of metastasis in HCC and hepatoma cells by negative regulation of the HGF/c-MET pathway, a key pathway involved in mitogenic and motogenic pathways diminishing cell growth, epithelial-mesenchymal transition, angiogenesis, invasiveness, and migration. Recent reports have shown that miR-198 inhibits lung cancer cellular proliferation, induces apoptosis, and inhibits growth of tumor xenografts by targeting FGFR1. All these functions accrue miR-198 to have significant implications for the treatment of carcinogenesis.

Please visit the following link for more information about Hsa-miR-198. <http://www.ncbi.nlm.nih.gov/gene/406975>

Summary and Explanation

miRNAs play an important role in many biological processes, including differentiation and development, cell signaling, and response to infection. Recent research have shown that human miRNA genes are frequently located in cancer-associated genomic regions, while perturbed miRNA expression patterns have been observed in many human cancers. A number of oncogenes and tumor suppressor genes were found to be the targets of miRNAs and global miRNA expression signatures were able to distinguish cancerous and non-cancerous tissues. Therefore, miRNA profiles can serve as highly specific markers for diagnosis, prognosis, disease monitoring, as well as prediction of therapeutic response. miRNAs are remarkably stable molecules and are well preserved in formalin-fixed, paraffin-embedded (FFPE) as well as frozen specimens. Early diagnosis, detection, and assessment of the disease progression are essential for disease management, especially in tumor patients, where timely therapeutic interventions are extremely critical.

Quality Control

This product is quality control tested at BioGenex according to the suggested procedure. The recommended positive control tissue(s) for this miRNA probe is liver (FB-HM198).

Recommended protocol and parameters for Hsa-miR-198 probe

Automated Protocol:

<https://omicsveu.com/wp-content/uploads/Brochures/914-0071.0.pdf>

Manual Protocol:







<https://omicsveu.com/wp-content/uploads/Brochures/914-0072.0.pdf>

For more information:

<https://omicsveu.com/wp-content/uploads/Brochures/914-0073.0.pdf>

Bibliography

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- [10.1261/rna.2006511](https://doi.org/10.1261/rna.2006511)
- <https://doi.org/10.1007/s11515-011-0990-4>
- [10.1016/j.febslet.2011.05.042](https://doi.org/10.1016/j.febslet.2011.05.042)
- [10.1016/j.bbamcr.2013.01.023](https://doi.org/10.1016/j.bbamcr.2013.01.023)
- [10.1002/jcb.24742](https://doi.org/10.1002/jcb.24742)

	Temperature Limitation	RUO	For Research Use Only
	Use By Date	LOT	Batch Code
	Non-Sterile		Consult Instructions for Use
	Catalogue Number		BioGenex

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